



PMRF-ISSS Teaching Programme

Prime Minister Research Fellowship students' teaching requirement
facilitated by the Institute of Smart Structures and Systems



Module PMRF-ISSS034/11/2025

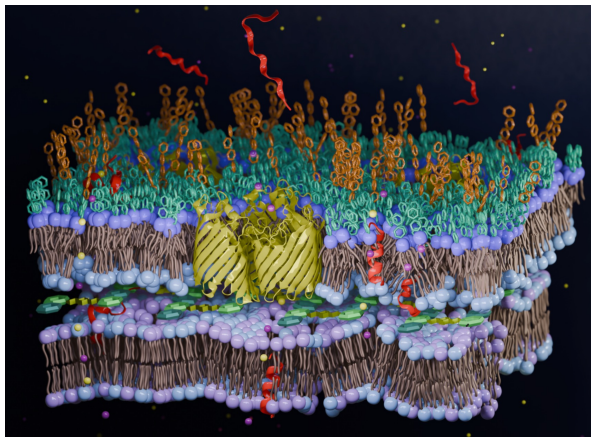
Membrane biophysics

Name of the PMRF student

Amar Krishna Gopinath

Required background of the students taught

Physics/Chemistry/Chemical engineering



Source: Sharma et al, *Langmuir* 2024 40 (15), 7791-7811

Details of the content of the module

The lectures shall be composed of the 7 units:

1. Structure and composition of bio-membranes
2. Self-assembly processes- hydrophobic effect
3. Models of bio-membranes: fluid mosaic model and advancements
4. Membrane dynamics: experimental techniques
5. Transport across membranes- active and passive transport
6. Mechanics of membranes
7. Experimental characterisation of bio-membranes

Schedule of the module

The course shall be held as a 7-day lecture series

24 Apr 2025 – 30 Apr 2025

5:00 PM to 8:00 PM

Meeting link : Will be shared later

[Link](#)

Contact email ID: issf.forum@gmail.com

Registration link:

<https://forms.gle/V7TptgiAgCBo1xTbA>